

Claims

1. (Currently Amended) In a computer system, a method of representing converting video data for a video image to a lower-precision representation for lower-precision processing of the video data, the method comprising:

representing receiving chroma and luma information for a pixel in the video image in an n-bit representation, the n-bit representation comprising a 16-bit fixed-point block of data per channel for the pixel, where the most significant byte in the 16-bit unit of data is an integer component, and where the least significant byte in the 16-bit unit of data is a fractional component, and

converting where the n-bit representation is convertible to a lower-precision representation by assigning zero values to one or more least significant bits in the fractional component while the integer component is unchanged, and
outputting a result of the converting.

2. (Original) The method of claim 1 wherein the n-bit representation is a 16-bit representation and the lower-precision representation is a 10-bit representation.

3. (Currently Amended) The method of claim 1 further comprising wherein the converting comprises converting the n-bit representation to an (n-m)-bit representation by assigning zero values to the m least-significant bits in the fractional component.

4. (Original) The method of claim 1 wherein the chroma information is sampled at a resolution less than the luma information.

5.-34. (Canceled)

35. (Previously Presented) The method of claim 3 wherein the n-bit representation is a 16-bit representation, and wherein the (n-m)-bit representation is a 10-bit representation.

36. (Previously Presented) The method of claim 3 further comprising processing data in the (n-m)-bit representation using (n-m)-bit hardware.

37. (Previously Presented) The method of claim 36 wherein the (n-m)-bit hardware comprises a 10-bit processor.

38. (Previously Presented) The method of claim 3 wherein the n-bit representation and the (n-m)-bit representation are associated with different FOURCC codes.

39. (Previously Presented) The method of claim 1 wherein one or more alpha values are associated with the video image.

40. (Currently Amended) A computer system comprising:

means for receiving at least one memory containing chroma and luma information for at least one pixel in a video image, the chroma and luma information in an n-bit representation, the n-bit representation comprising a 16-bit fixed-point block of data per channel for the pixel, where the most significant byte in the 16-bit unit of data is an integer component, and where the least significant byte in the 16-bit unit of data is a fractional component,

means for converting and where the n-bit representation is convertible to a lower-precision representation by assigning zero values to one or more least significant bits in the fractional component while the integer component is unchanged; and

means for outputting a result of the converting.

one or more processing units operable to process the chroma and luma information for the at least one pixel in the video image.

41. (Previously Presented) The computer system of claim 40 wherein the n-bit representation is a 16-bit representation and the lower-precision representation is a 10-bit representation.

42.-43. (Canceled)

44. (Previously Presented) The computer system of claim 40 wherein the n-bit representation and the lower-precision representation are represented by different FOURCC codes.

45. (Canceled)

46. (Currently Amended) The computer system of claim 40 further comprising means for displaying the video image using the lower-precision representation a display.

47. (New) The computer system of claim 40 wherein the n-bit representation and the lower-precision representation are most-significant-bit justified.

48. (New) The computer system of claim 40 wherein the chroma information and the luma information are in a YUV color space.

49. (New) The method of claim 1 wherein the n-bit representation and the lower-precision representation are most-significant-bit justified.

50. (New) The method of claim 1 wherein the chroma information and the luma information are in a YUV color space.

51. (New) One or more computer-readable media having computer-executable instructions stored thereon for causing a computer to perform a method comprising:
receiving chroma and luma information for a pixel in the video image in an n-bit representation, the n-bit representation comprising a 16-bit fixed-point block of data per channel for the pixel, where the most significant byte in the 16-bit unit of data is an integer component, and where the least significant byte in the 16-bit unit of data is a fractional component,
converting the n-bit representation to a lower-precision representation by assigning zero values to one or more least significant bits in the fractional component while the integer component is unchanged, and
outputting a result of the converting.

52. (New) The computer-readable media of claim 51 wherein the n-bit representation is a 16-bit representation and the lower-precision representation is a 10-bit representation.
53. (New) The computer-readable media of claim 51 wherein the n-bit representation and the lower-precision representation are most-significant-bit justified.